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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/735,315 | 12/12/2000 | Jesse Chin | 10992775-1 | 4955 |

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EXAMINER

RODRIGUEZ, ARMANDO

ART UNIT PAPER NUMBER

2828

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/735,315

Applicant(s)

CHIN ET AL.

Examiner

Armando Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.



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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed August 26, 2003 have been fully considered but they are not persuasive.

The 35 USC 102(b) rejection has been withdrawn, however applicant's arguments on page 12 as to suggesting that the recited term of "affecting" implies programming is unacceptable, since programming requires particular hardware and software.

Regarding the arguments pertaining to negative peaking, Shastri et al discloses in column 4 line 11, the function of switching on and off which will inherently cause negative peaking.

Regarding the arguments pertaining to the Heilman et al reference, which discloses a circuit for decreasing the negative peaking due to switching on and off of the laser is proper prior art, applicant's attention is directed to MPEP 706.02 (f) (1).

Response to Amendment

Regarding claims 29-39 pertaining to the 35 USC 102(b) rejection has been withdrawn based on applicant's amendment to claim 29 and replaced with a 35 USC 103 rejection.

Regarding claims 39 and 40 pertaining to the double patenting warning has been withdrawn based on applicant's amendment of claim 39.

Regarding claims 21 and 36 pertaining to the 35 USC 112 rejections has been withdrawn based on applicant's arguments of claim 21 and amendment of claim 36.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shastri et al (PN 5,844,928) in view of Heilman et al (US 2002/0094000) and Olsen (PN 5,623,355).

In figure 2 Shastri et al illustrates a laser driver having a nonvolatile memory (20), a digital controller (36) where the controller compensates for aging and temperature fluctuations by adjusting the current, as described in columns 2 and 3.

Regarding claims 21,28,29 and 36, figure 2 illustrates a nonvolatile memory (20) for storing coupled to digital controller (36), which is coupled to driver (43) for receiving the waveform parameters from the digital controller.

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Regarding claims 22,30, figure 2 illustrates the digital controller receiving a maximum aging coefficient from the memory (20), which is provided to the driver for generating the waveform and illustrates temperature and aging compensation.

Regarding claims 24,31, figures 1 and 2 of Shastri illustrate an integrated digital controller (36), which provides a waveform signal to the driver based on the temperature sensor (38).

Regarding claim 25, figure 2 of Shastri et al illustrates an up/down counter for providing a waveform signal to driver.

Regarding claims 23,26,27,32,39,40

Shastri et al discloses in column 3 lines 32-40, digital representation of the bias current and modulation at the measured temperature and aging coefficient, but is silent as to the negative peaking of the laser system.

The dc and ac characteristics of the laser device are inherent within the laser of Shastri et al, furthermore the ac characteristics caused by the switching of on and off of the laser system, which is known in the art as undershoot or negative peaking as disclosed by Heilman et al in paragraph [0006]. Shastri et al discloses in column 4 line 11, the function of switching on and off which will inherently cause negative peaking.

Heilman et al discloses in the abstract a circuit for decreasing the negative peaking due to switching on and off of the laser.

Therefore it would have been obvious to a person having ordinary skill in the art to provide the laser system of Shastri et al with the circuit described by Heilman et al

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because it would decrease the negative peaking caused by the on and off of the modulated current.

Shastri et al is silent to using an array of lasers.

Olsen illustrates in figure 2 a laser transmitter having memory storage (18), a laser driver circuit (54). In column 3 lines 33-40 disclose factors, which affect the laser as aging and temperature fluctuations and where the processor compensates for these factors by elevating the laser drive current. In column 6 lines 8-18 disclose the addition of the digital-to-analog converters for their use in parallel semiconductor laser arrays.

Therefore, it would have been obvious at the time the invention was made to provide the laser system Shastri et al with a plurality of lasers having temperature and aging compensation, as taught by Olsen. Furthermore, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

Regarding claims 33,37 and 38, figure 2 of Shastri et al illustrates aging coefficient, bias current, modulation current and temperature compensation as parameters for the laser driver.

Regarding claim 34, monitor (16) is shown in figure 2 of Shastri et al having an A/D converter, which is understood that the signal received from the driver, is an analog signal.

Regarding claim 35, figure 2 of Shastri et al illustrates a laser (14), which includes semiconductor lasers.

Conclusion


THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Armando Rodriguez whose telephone number is (703) 308-6218. The examiner can normally be reached on 10-hour day / M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-4881.


Armando Rodriguez
Examiner
Art Unit 2828


Paul Ip
Supervisor
Art Unit 2828

AR/PI